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REMARKS

Claims 1-27 are pending in this application with claims 9, 24 and 26 being amended by this response.

Claims 9 and 26 have been formally amended in accordance with the Examiner's suggestion to remove the informalities contained therein.

Claim 24 has been amended to further recite "wherein the rules contained in the first database take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success". This limitation is contained in previously examined claims 1 and 25. Thus, applicant respectfully submits that there is sufficient support for this amendment.

Objection to the Drawings

The drawings are objected to for containing several blank boxes. The drawings have been amended to add all appropriate text labels to their corresponding boxes as required by the Examiner. Amended drawing sheets including these amendments are attached for replacing the drawing sheets currently on file.

Additionally, the Examiner objected to Figure 1 as having a reference numeral not described in the detailed description. Reference numeral "14" was inadvertently left out of the specification and the specification is hereby formally amended to include reference numeral 14.

In view of the above remarks, amendments to the drawing sheet and amendment to the specification, it is respectfully submitted that this objection has been satisfied and should be withdrawn.

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Rejection of Claims 1-27 under 35 USC § 102

       Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Stark et al. (PCT Patent No. WO 01/26548).

       The present claimed invention discloses a method and system for supporting therapy planning in the rehabilitation of a patient. Patient data including measured values for measured variables relating to at least one of execution and **quantification** of interim results for a training program completed by the patient is recorded. A first database containing rules for linking patient data to proposals for modifying training programs is provided. At least one proposal for at least one of modifying **and** retaining the training program completed by the patient is automatically generated, by way of at least one of a first and a second data processing station by reverting to the first database and the patient data. Thereafter, the generated at least one **proposal** is output on at least one of the first and a further data processing station. The rules contained in the first database take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success. Claims 9, 15, 20, 24, and 25 contain similar limitations.

       Included in the method and system of Independent Claims 1 and 25 is a database that contains a set of rules, which are linked to patient data. Based on the linkage of the rules and the patient data, suggestions for modification of the training program are provided.

Specifically, Independent claims 1 and 25 recite:

> "...outputting the generated at least one proposal on
> at least one of the first and a further data processing
> station, wherein the rules contained in the first
> database take into account reciprocal dependencies
> for success of training in different capability
> categories in order to ensure balanced training success."

       Stark et al. discloses a method of treating orthopedic injuries. The method disclosed by Stark et al. uses historical patient data to generate a treatment protocol and then compares the current patient data to the historical data. Moreover, as stated on

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page 2 of the present specification, Stark et al disclose "a method and a system for telemedical treatment of orthopedic injuries, in which, during implementation of the rehabilitative training program, measured data is recorded which permit inference of the implementation of the training program or an interim result during implementation of this training program. The measured data are recorded by a handheld computer at the patient's location and are transmitted to a central data processing station in which, by reverting to a database, the measured data transmitted can be taken as a basis for automatically proposing a modification to the training program. In this case, the database contains "historical" training programs for comparable patients. Stark et al. also discloses comparison of the patient's training progress data with the known progress of comparative patients."

However, Stark et al. neither disclose nor suggest "providing a first database containing rules for linking patient data to proposals for modifying training programs...wherein the rules...take into account <u>reciprocal dependencies</u> for success of training in different capability categories in order to ensure balanced training success" as in the present claimed invention.

The rejection cites page 13, paragraph 1 – page 14 of Stark et al. as anticipating the present claimed invention. Applicant respectfully disagrees. Stark et al. provide no 35 USC 112 enabling disclosure that anticipates the present claimed invention. Rather, the section of Stark et al. cited by the Examiner merely discloses that treatment protocols are "generated based upon information...include(ing) a plurality of historic treatment protocol records." However, this is unlike the "first database" provided by the present claimed invention because the database disclosed by Stark et al. neither disclose nor suggest that "rules contained in the first database take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training sessions" as in the present claimed invention. "Historic treatment protocol records" as used in Stark et al. are not equivalent to the "different capability categories" of the present claimed invention. Furthermore, there is no disclosure or suggestion by Stark et al. that the "rules...take into account reciprocal dependencies" as in the present claimed invention. In fact, the present invention does

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not limit itself to generating training programs based solely on the success rate and method of prior patients. For example, the rules could take recent study data or current patient lifestyle into account when devising a training program (see page 4, lines 20 – 23 of paragraph [0015]).

Applicant further respectfully disagrees with the assertion in the rejection that Stark et al., on page 25, par. 3, page 26, pars. 1-3, disclose "outputting the generated at least one proposal on at least one of the first and further data processing station, wherein the rules contained in the first database take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success" as in the present claimed invention. Rather, page 25, par. 3, page 26, pars. 1-3 merely disclose considering injury type and grade, patient demographics, and past performance of the patient for generating protocols. These factors are not "capability categories" as claimed in the present invention. The "capability categories" of the present invention are goals that the patient needs to meet for balanced training to occur. The factors cited above on which Stark et al. base the treatment system are non-goal related factors that are used to compare the patient to the historical patient database. In the present claimed invention, "the first database take[s] into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success". In other words, there are different "capability categories" for which "success of training" in those categories need to be successfully be completed before their recovery goals are considered achieved. These categories are related such that the goals for each of them need to be achieved in a set ratio. If the goals in only one of the categories are met, the rules of the "first database" generate an alternative training program so that the goals are met (see page 9 – 10, lines 3 – of paragraph [0029]. Therefore, as Stark et al. neither disclose nor suggest "a first database containing rules for linking patient data to proposals for modifying training programs…wherein the rules contained in the first database take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success", it is respectfully submitted that the present invention as claimed in claims 1 and 25 are not anticipated by Stark et al.

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Independent Claim 9, in pertinent part, recites:

> "...outputting the generated at least one proposal
> on at least one of the first and a further data
> processing station, wherein the rules contained in
> the first database takes into account influences of
> other illnesses in the patient, which are recorded
> in the patient data, on the training program."

Applicant respectfully disagrees with the assertion in the rejection that the above described limitation is disclosed by Stark et al. on page 25, par. 3, page 26, pars. 1-3. However, page 25, par. 3, page 26, pars. 1-3 merely disclose considering injury type and grade, patient demographics, and past performance of the patient for generating protocols. Applicant respectfully submits that there is a significant and clear difference between the term "injury" as disclosed by Stark et al. and the term "illnesses" as claimed in claim 9 of the present invention. Injuries are defined by www.dictionary.com as, "damage or harm done to or suffered by a person." An illness, on the other hand, is defined by www.dictionary.com as "poor health resulting from disease of body or mind; sickness." For example, the method of the present invention as claimed in claim 9 when treating a cardiac patient will take cirrhosis of the liver (an illness) into account when "automatically generating...at least one proposal for at least one of modifying and retaining the training program completed by the patient". Stark et al., on the other hand, would not "take into account influences of other illnesses in the patient" as in the present claimed invention. Specifically, Stark et al. disclose a system for treating orthopedic injuries and neither disclose nor suggest considering an illness, such as cirrhosis of the liver, when treating an orthopedic injury such as broken limb because Stark et al. merely considers "injury type and grade" and not "other illnesses in the patient" as claimed in claim 9 of the present invention. Thus, as Stark et al. disclose a database that functions using rule wholly unlike the "rules" of the "first database" of the present claimed invention, Stark et al. cannot anticipate the present invention as claimed in claim 9.

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Independent Claim 15, in pertinent part, recites:

> "...wherein generation of a proposal for modifying
> the training program additionally involves generation
> and output of advice including organizational
> recommendations for action which result from the modification."

Applicant respectfully disagrees with the assertion in the rejection that the above described limitation is disclosed by Stark et al. Page 23, par. 3 is cited in support of this assertion. However, page 23, par. 3 merely discloses using patient data for "insurance company reports to facilitate efficiency of reimbursements and financial controls." This is unlike the present claimed invention which "involves generation and output of advice including organizational recommendations for action which result from the modification". Using patient data to complete forms for an insurance company is wholly unlike "generation and output of advice including organizational recommendations for action" as claimed in claim 15 of the present invention. The present claimed invention teaches "generation of a proposal for modifying the training program additionally involves generation and output of advice including organizational recommendations for action which result from the modification". In other words, when a training program is modified, advice is generated and that a portion or the advice is directed towards an organization for the organization to make changes based on the modification of the training program. An example of this would be when a patient training program is modified to require the patient to walk for 10 minutes every 2 hours, the organization is advised of this and should make allowances for this walk. This is clearly distinguishable from the use of the patient data by the system disclosed by Stark et al. which outputs data for efficient handling insurance claims and financial reimbursements. Therefore, it is respectfully submitted that Stark et al. does not anticipate the present invention as claimed in claim 15.

Independent Claim 20 in pertinent part recites:

> "...wherein training progress data for a multiplicity
> of comparative patients, combined into a patient
> collective, who have already executed a comparable

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training program are made available,

at least one comparative curve for the measured variables
are calculated from the patient collective's
training data using calculation instructions and are
stored,

the patient's respective current measured values
are automatically compared with measured values
from the stored comparative curve which correspond to
at least one of the respective time and the respective
training stage in order to generate the proposals
for modifying the training program if the patient's
measured values differ from the progress
curve by a prescribable minimum value..."

Page 13, paragraph 1 – page 14, paragraph 1 is cited in the rejection as disclosing the above limitation. However, while the system disclosed by Stark et al. and discussed in this passage utilizes prior patient data to determine a treatment program of the current patient, the manner which this determination is performed is wholly unlike the method of the present claimed invention. Specifically, the portion of Stark et al. cited in the rejection says that data of prior similarly situated patients is "presented to a treatment professional for approval" (see Stark et al., page 13, last line). Thus, as the data needs to be presented to a treatment professional, Stark et al. neither disclose nor suggest "the patient's respective current measured values are automatically compared with measured values from the stored comparative curve" as in the present claimed invention. In fact, there is no hint of "automatically generating...at least one proposal for at least one of modifying and retaining the training program" as in the present claimed invention.

The rejection further states, that Stark et al. teach generating three curves for three different groups and comparing the patient data in order to generate a proposal on page 26, paragraphs 1 – 3. Applicant respectfully disagrees. Rather, in the cited portion of Stark et al., the curves identified merely represent different treatment plans for the current patient. As stated on page 25 of Stark et al., the one factor taken into account to generate the curves is "past performance of the patient during the current episode". This data value is clearly different than the "patient collective, who have already

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executed a comparable training program" in the present claimed invention. Therefore, it follows that the "at least one comparative curve for the measured variables" is inherently different from the curve(s) disclosed on page 26 of Stark et al. Specifically, as stated on page 26, the protocol curves are dependent upon the patient's injury type. But even if the example utilized "past performance of the patient during the current episode", it follows that the curve would inherently be based on data different than the "at least one comparative curve" of the present claimed invention. Therefore, it is respectfully submitted that claim 20 is not anticipated by Stark et al.

Independent Claim 24, in pertinent part, recites:

> "...providing a first database which contains rules
> for linking patient data to proposals for modifying
> training programs, wherein the rules contained in the
> first database take into account reciprocal dependencies
> for success of training in different capability
> categories in order to ensure balanced training success..."

Amended claim 24 includes similar limitations as claims 1 and 25. Therefore, Applicants respectfully submit that the arguments presented above independent claims 1 and 25 are applicable to amended claim 24. Specifically, Stark neither disclose nor suggest "the rules contained in the first database take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success" as in the present claimed invention. Therefore, Applicants respectfully submit that the present invention as claimed in independent claim 24 is not anticipated by Stark et al.

Claims 6, 13, 19, and 23, in pertinent part, recite:

> "...the patient data are repeatedly recorded and
> updated during the training program in order to
> automatically generate proposals for modifying the
> training program."

Page 20, par. 2-page 22, par. 2 of Stark et al. is cited in the rejection as disclosing the above described limitation. However, page 20, par. 2-page 22, par. 2

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merely discloses that after a set protocol is completed, the patient performance is compared to the benchmark standard. This is different from the present claimed invention that continually compares patient performance in real time as the patient is performing the prescribed training program (see page 7, lines 1 – 4 of paragraph [0021]). Because the comparisons are made in real time, proposals to alter the program could be made immediately instead of waiting for the end of a set protocol as would be the case in the system disclosed by Stark et al. Therefore, the post completion comparison required in the system disclosed by Stark et al. is wholly unlike "the patient data [being] repeatedly recorded and updated during the training program in order to automatically generate proposals for modifying the training program" of the present claimed invention. Thus, Applicants respectfully submit that the present invention as claimed in claims 6, 13, 19 and 23 is not anticipated by the system disclosed by Stark et al.

In view of the above remarks, it is respectfully submitted that Stark et al. provides no 35 USC 112 enabling disclosure that anticipates the present invention as claimed in claims 1, 9, 15, 24 and 25. As claims 2 – 8 are dependent on independent claim 1, claims 10 – 14 are dependent on independent claim 9, claims 16 – 19 are dependent on independent claim 15, claims 21 – 23 are dependent on independent claim 20, and claim 26 is dependent on independent claim 25, it is respectfully submitted that claims 2 – 8, 10 – 14, 16 – 19, 21 – 23 and 26 are allowable for the same reasons as discussed above regarding claims 1, 9, 15, 20 and 25. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

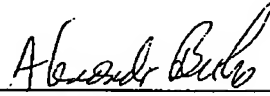10/612,020   Attorney Docket No. 2002P01286US

No fee is believed due. However, if a fee is due, please charge the additional fee
to Deposit Account 19-2179.

Respectfully submitted,
Klaus-Abraham-Fuchs et al.

Date: 17 December 2004   By: _Alex J. Burke_

                                                   Alex J. Burke
                                                   Reg. No. 40,425
                                                   November 11, 2004

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